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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/643,333 | 08/22/2000 | Harry A. Loder | 55243USA3B | 8443 |

32692 7590 06/05/2003

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EXAMINER

PAK, SUNG H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2874

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application N . | | Applicant(s) | |
| | 09/643,333 | | LODER ET AL. | |
| | Examiner | | Art Unit | |
| | Sung H. Pak | | 2874 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-37 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 and 32-37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 and 30 is/are allowed.
- 6) ☒ Claim(s) 23-29 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>18</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 2/21/2003 and 4/1/2003 have been entered.

Information Disclosure Statement

Information disclosure statement filed 1/30/2003 has been considered by the examiner. Please refer to PTO-1449 enclosed herewith.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23-29, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth (US 6,079,881) in view of Takahashi et al (EP 0788002 A1).

Roth was cited in the prior office action. Takahashi et al was cited in the information disclosure statement.

Regarding claim 23, Roth discloses a fiber optic connector for backplane application (column 3 line 13) with all the limitations set forth in the claims, except it does not teach the single piece integral spring member as a foldable door. Specifically, Roth discloses: backplane housing defining a longitudinal receiving cavity (Fig. 2); the cavity having a frontal and rear opening with foldable frontal and rear door utilizing a foldable spring, wherein the doors automatically close when an optical connector member is not placed in the opening (Fig. 2).

However, the foldable door in Roth is composed of multiple parts and its construction is relatively costly. Foldable door piece in Takahashi et al, on the other hand, is composed of single piece component, foldable from a single side of the receiving cavity, effectively closing off the entrance of the connector from any possible contaminants. Takahashi et al explicitly mentions that such a design is advantageous because it is simple and inexpensive compared to prior art devices (column 2 lines 13-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to modify foldable door of Roth with the teachings of Takahashi et al.

Regarding claim 29, Roth does not teach the housing having plurality of linearly stacked receiving cavities. However, backplane fiber optic connector housing having plurality of linearly stacked receiving cavities is well known and commonly used in the art. Such configuration provides a known advantage of having high density of fiber optic connections for a given space. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Roth device to have plurality of linearly stacked receiving cavities. It would be desirable to have high density fiber optic connections.

Allowable Subject Matter

Claim 30 is allowed.

The following is a statement of reasons for the indication of allowable subject matter: Claim 30 is now amended recite allowable limitations in an independent form. The allowable limitations were indicated in the previous office action.

Claims 8-12 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Applicants' arguments regarding the patentability of pending claims 8-12 are convincing and the claims are allowed. As discussed in the prior office actions, a fiber optic connector assembly comprising single piece foldable doors for covering connector

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receiving cavities is known in the art. However, none of the prior art fairly teach or suggest such a connector assembly having a folding door comprising a hinge plate formed integrally with a pair of biasing members, in which the door component covers the frontal openings of **a pair of receiving cavities** at the same time. Such a structure is considered novel and inventive over the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (703) 308-4880. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.


The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



sp
May 30, 2003

Sung H. Pak
Examiner
Art Unit 2874



Rodney Bovernick
Supervisory Patent Examiner
Technology Center 2800